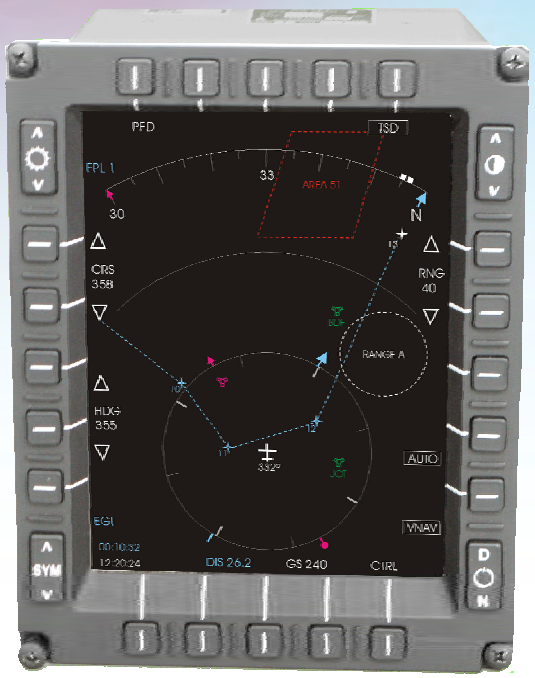
5”x4” Multi Function Color Display

Advanced, LCD based Multi Function Color Display

- ***Patented LED backlight***
- ***High Reliability, Decreased Maintenance***
- ***Portrait orientation***
- ***Internal DSP***
- ***Digital Video (DVI) Interface***



Astronautics’ 5”x4” Multi Function Color Display is an advanced solutions for new avionics & legacy aircraft retrofit programs. The high-reliability, color Active Matrix LCD (AMLCD) based devices incorporates an internal DSP processor that may generate internal graphics as overlay over the video, or with self contained symbology in backup mode. The 5”x4” MFCD receives digital video in DVI format (LVDS optional), displayed over the MFCD. The MFCD’s patented LED backlight provides high-quality display colors, with a higher reliability and longer life of the unit. The LED backlight incorporate day/night/NVG functionality all within a single backlight layer, based on a proprietary patent.

The 5”x4” MFCD may present graphics or live video, with high response rate. The MFCD is capable of displaying live video from sensors, tactical situation display, avionics display formats and more.

Astronautics 5”x4” Color Liquid Crystal Multifunction Display features include:

- Active Matrix LCD display
- LED backlight
- Aspect ratio 3:4
- 20 Multifunction keys, RS-422 interface
- Brightness/Contrast bezel controls
- Brightness/Symbol brightness control
- Contrast enhancement filters
- Night Vision Goggles (NVG) compatibility
- Selectable Brightness Modes: Day, Night, Auto (Day/Night also via bezel keys)
- Modular , Rugged Construction
- Build In Test (BIT), reported via RS-422
- 64 shades of Gray
- Internal DSP for backup graphics or overlay graphics

ASTRONAUTICS C.A. LTD.

5”x4” Multi Function Color Display

LED based MFCD ❋ High-Reliability ❋ Internal DSP processor

GENERAL

- High Resolution Display
- Suitable for military aircraft & helicopters
- Fully digital implementation internally:
  - Color LCD based display head
  - DSP processor
- LED backlight (Patented)
  - High brightness rear backlight
  - Single backlight layer supporting Day/Night/NVG
- Separate heaters input
- Portrait orientation. Incoming video is rotated and re-sized to the center of the display

CHARACTERISTICS

Viewing Angles: - Horizontal: ±45°
- Vertical: 0° to +30°

Display Area: 6.5” (5.2”x3.9”)

Display Resolution: 640x480 (VGA) x 3 pixels

Colors: 65,536 (5 bits for Red & Blue, 6 bits for Green)

Brightness Levels : 0.05fL to 180fL

Response Time: 35 ms (Typical)

Contrast Ratio Up to 250:1 at low ambient light

Power: 18-32VDC (MIL-STD-704D), 30 W (Additional 30W for heaters)

NVG: Per MIL-L-3009

Temp: -40ºC to +55ºC (+71ºC Intermittent)

EMI/EMC: Per MIL-STD-461C/D

NVIS Compatibility: Per MIL-STD-3009

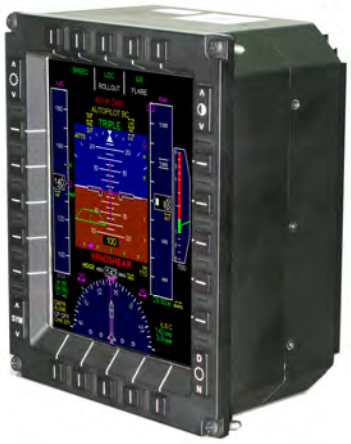
Environmental conditions: Per MIL-STD-5400

MTBF > 5,000 Hours

INTERFACES

VIDEO: DVI 1.0 (LVDS optional) & Y/C or PAL/NTSC (2 outputs). Input impedance – 75 Ohm or high-impedance (selected via RS-485 command). Selection of PAL/NTSC outputs via discrete of RS-485 command

Digital: RS-485, RS-232, Discrete outputs (6), ON/OFF input discrete, Fail indication discrete



MECHANICAL

Dimensions: 180mm (H) x 140mm (W) x 140mm (D)

Weight: Less than 2.5 Kg

Mounting: Direct panel mounting (4 captive screws)

Cooling: Self cooling

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